

1994 Congress on Cell and Tissue Culture
"Regulation of Cell and Tissue Differentiation"

June 4-7, 1994

Research Triangle Park, NC

**CALL
FOR
ABSTRACTS**

Abstract Deadline
January 14, 1994

- **PROGRAM TOPICS**
- **STUDENT AWARDS**
- **TRAVEL INFORMATION**
- **HOTEL ACCOMMODATIONS**
- **REGISTRATION INFORMATION**

Mary Ann Lila Smith, Program Chair
Howard L. Hosick, Program Co-Chair

MEETING REGISTRATION INSTRUCTIONS

1. Complete all information requested on the Meeting Registration Form.
2. Circle appropriate Registration Fee. All registrations will include one ticket to the banquet (except One-Day registration) and the Abstract issue.
3. If registering at the Combined Reg/Mbrship fee you must complete the Membership Application Form and send with your registration payment.
4. Complete your name, telephone number, employer, and complete address.
5. Indicate type of payment. If paying by credit card indicate type of card (bank only accepts MasterCard or VISA), card number, expiration date, total amount to be charged, and your signature.
6. Send completed Registration Form and payment to 1994 Congress on Cell and Tissue Culture, P.O. Box 73230, Baltimore, MD 21273 USA. **Do NOT mail registration after May 3, 1994;** bring payment to meeting registration desk. A registration receipt will be forwarded to advance registrants immediately upon receipt of registration payment.



MEETING REGISTRATION FORM 1994 CONGRESS ON CELL AND TISSUE CULTURE Research Triangle Park, NC • June 4-7 1994

Registration Fees (Circle appropriate fee)	Member	Non-Member	Combined Reg/Mbrship	One-Day	Student
Preregistration with Abstract Submission (Co-author(s) must register at Preregistration or Registration Rates) (Before January 14, 1994)	\$160	\$250	\$240	\$95	\$65
Preregistration (Before March 31, 1994)	\$180	\$280	\$260	\$95	\$65
Registration (After April 1, 1994)	\$205	\$305	\$285	\$95	\$65

All registrations will include one ticket to the banquet (except One-Day registrants) and the Abstract issue.

Emeritus TCA Members—\$65 registration. Students must attach evidence of student status. One-Day registrants must specify day they will attend. SA—S—M—T

REGISTRANT _____ Telephone _____
Employer _____ Address _____
City _____ State/Province, Country _____ Zip/Postal Code _____

Method of payment: ☐ Cash/Check (Makes checks payable in USA funds to the Tissue Culture Association. If not USA bank, add bank clearance fee; \$10 Canada, \$25 other. Purchase orders not acceptable. Payment in advance only.)
☐ Credit Card — Bank only accepts ☐ Master Card or ☐ VISA

Signature _____ Card Number _____
Expiration Date _____ Amount \$ _____ US Dollars

NOTE: Refund requests must be in writing. Amount is determined by the date received: Full refund to May 2, 1994; one-half refund from May 2 to May 13, 1994; no refund after May 16, 1994. Abstract fee is nonrefundable.

Send meeting registration fees to: Congress on Cell and Tissue Culture, P.O. Box 73230, Baltimore, MD 21273 USA.

Do NOT mail registration after May 3, 1994; bring payment to meeting registration desk.

TCA MEMBERSHIP APPLICATION

1994 Dues Rates ☐ Combined Reg/Mbrship—\$240* ☐ Regular—\$80 ☐ Student—\$25**
☐ Student with *In Vitro*—\$45** ☐ Sustaining—\$400 ☐ Life—\$850



Name and Title _____
Last First Middle Initial (Dr. Mr. Ms. etc.)
Organization _____ Address _____
City _____ State/Province, Country _____ Zip/Postal Code _____
Telephone _____ Facsimile (FAX) _____ E-Mail _____
Degrees**

Degree	Institution	Date	Degree	Institution	Date
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TCA Division Affiliation Requested (No additional charge) ☐ Plant ☐ Invertebrate ☐ Vertebrate

Membership dues include a subscription to *In Vitro Cellular & Developmental Biology—ANIMAL* or *—PLANT* and the *TCA Report*. Membership is paid for the calendar year. Applications received after November 1 will apply to the next year unless specified.

*Combined Reg/Mbrship fee is dependent upon date payment is received: \$240 if received before January 14, 1993; \$260 if received after January 14 and before March 31, 1994; \$285 if received after March 31 and before June 8, 1994.

**Students should list anticipated month/year of graduation and type of degree. Student membership is limited to four years, predoctoral students.

MATRIX DESIGNATIONS

<input type="checkbox"/> INVERTEBRATE, <input type="checkbox"/> VERTEBRATE, AND <input type="checkbox"/> CELLULAR TOXICOLOGY <input type="checkbox"/> Biotechnology <input type="checkbox"/> Cellular and Molecular Toxicology <input type="checkbox"/> Cellular Models <input type="checkbox"/> Growth, Differentiation and Senescence <input type="checkbox"/> Genetics <input type="checkbox"/> Infectious Diseases/Cellular Pathology <input type="checkbox"/> Immunology	<input type="checkbox"/> PLANT RELATED AREAS <input type="checkbox"/> Cell Biology <input type="checkbox"/> Developmental Biology <input type="checkbox"/> Somatic Cell Genetics/ Genetic Transformation <input type="checkbox"/> Micropropagation <input type="checkbox"/> Physiology <input type="checkbox"/> Secondary Metabolism	EMPLOYER (Primary) <input type="checkbox"/> College or University <input type="checkbox"/> Federal Government <input type="checkbox"/> State Government <input type="checkbox"/> Other Government <input type="checkbox"/> Commercial (profit) Organization <input type="checkbox"/> Not for profit Organization <input type="checkbox"/> Self Employed <input type="checkbox"/> Other (Specify) <input type="checkbox"/> Retired <input type="checkbox"/> Unemployed
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TISSUE CULTURE ASSOCIATION, 8815 Centre Park Drive, Suite 210, Columbia, MD 21045 USA
(410)992-0946 • FAX (410)992-0949



INSTRUCTIONS FOR ABSTRACT FORM

Abstract(s) and Abstract Fee(s) Must be Received by January 14, 1994

1. **MUST HAVE ORIGINAL ON BLUE FORM OR ON PLAIN WHITE PAPER** to dimensions that fit the blue box on the abstract form. Abstracts will be printed by photo-offset; your abstract will appear exactly as you submit it. If the abstract's appearance is deemed unsatisfactory, it will be returned to the author to be retyped in an appropriate form.

2. Use black, high density print type, no smaller than 12 points in size.

3. Use BLACK ink for adding symbols not on keyboard.

4. Indent to point shown and type title, authors, and affiliations. Underline last line of heading to demarcate heading from text. Type abstract full width, close to, but not across, margin.

5. Capitalize first letter of each major word of title.

6. *Capitalize name of PERSON PRESENTING paper*, e.g. C. D. WOODWORTH and J. A. DiPaolo.

7. Addresses should follow last author's name. Include the ZIP/POSTAL CODE.

8. Start text of abstract on new line, without indentation, and use entire width of box. Do not type on or beyond blue box lines.

9. *PRINT FINAL COPY* on Abstract form or plain white paper. To facilitate review, reproduce seven (7) additional copies and return with completed form.

- Receipt of abstract will be acknowledged if a self-addressed postcard is sent with the abstract.

- Do NOT send Abstracts by Telefacsimile. Abstracts sent by telefacsimile will not be accepted.

Prepare abstract with extreme care as it will be printed by photo-offset and appear exactly as you submit it.

Indent title to this point

SAMPLE ABSTRACT

Immortalization and Aberrant Differentiation of Normal Human Cervical Epithelial Cells Transfected with Human Papillomavirus DNAs. C.D. WOODWORTH and J.A. DiPaolo. Laboratory of Biology, National Cancer Institute, Bethesda, MD 20892.

Clinical and epidemiological data support an etiologic role for specific human papillomavirus (HPV) types in cervical cancer; however, virus infection alone is not sufficient for malignant conversion. In vitro and in vivo models have been developed to study the interaction between HPVs and cervical cells. Normal human epithelial cells have been cultured from the cervical transformation zone where most cervical cancers originate, or from foreskin epithelium which serves as a reservoir for HPVs in vivo. Transfection of these cells with DNA from HPV types associated with cervical cancer resulted in outgrowth of immortal cell lines. In contrast, DNAs from HPV types with low or no oncogenic association did not immortalize. With this approach a series of immortalized cell lines was generated containing HPV genomes that were integrated, rearranged, and transcriptionally active. To assess directly the effect of HPVs on squamous differentiation, cells were transplanted beneath a skin-muscle flap in athymic mice. Xenografts containing normal cells formed well-differentiated stratified squamous epithelia but cell lines immortalized by HPV 16 or 18 DNA exhibited dysplastic morphology, delayed commitment to terminal differentiation, and reduction in levels of involucrin and keratin 1 RNAs. Transforming growth factors beta (TGF β s) one and two reversibly inhibited cell growth and expression of the HPV16 E6 and E7 genes implicated in maintenance of the malignant phenotype. Loss of E6 and E7 expression was accompanied by cessation of cell proliferation. In contrast, four of five cervical tumor lines were resistant to the effects of TGF β s. Thus, TGF β s may modulate HPV gene expression and loss of responsiveness to this inhibitory factor may be involved in malignant transformation. This two stage model utilizing relevant human cells provides a system for elucidating critical cellular changes associated with progression to malignancy.

The Sheraton Imperial Hotel

The Sheraton Imperial Hotel and Convention Center is located just minutes from the Raleigh-Durham International Airport. Free airport shuttle is provided by the hotel (check at baggage claim for courtesy phones). For those who wish to drive, the Sheraton Imperial Hotel has ample free parking for its hotel guests and meeting registrants.

Research Triangle Park, NC is an ideal location for those scientists who may wish to take advantage of the opportunity to visit some of the many research facilities, universities, and medical centers located a short distance from the hotel.

For those vacation enthusiasts, North Carolina is famous for its beaches and outlet shops. You can be sure to have a great time just roaming the beaches or shopping for great buys.

There are dining and lounge facilities at the Sheraton Imperial Hotel. The Cascades restaurant is open for breakfast, lunch, and dinner with a buffet available at breakfast and lunch.

You may choose from a single or double room at \$84.00. Government rates are available to attendees with a government I.D. **Cut off date is May 3, 1994.** Reservations made after this date will be accepted on availability basis. Convention rates will be honored 3 days before and 3 days after meeting by special request, on availability basis. Room reservations must be accompanied by one night's deposit or credit card.

There are a variety of services and leisure activities available during your stay. Child care facilities, outdoor pool, athletic club, and a 2.5 mile jogging trail are just some of the services available to hotel guests.

HOTEL RESERVATION INSTRUCTIONS

1. Complete all information requested on the Reservation Form.
2. Circle desired room rate.
3. Include name(s) of all person(s) to occupy room, arrival date and time, and departure date and time.
4. Indicate type of payment. If paying by credit card indicate type of card and include signature, card number, and expiration date.
5. Send completed Hotel Reservation Form and one night's deposit to Sheraton Imperial Hotel, P.O. Box 13099, Research Triangle Park, NC 27709. **Do NOT** send to Congress. Hotel will confirm directly to you.

DEADLINE MAY 3, 1994

HOTEL RESERVATION FORM

1994 Congress on Cell and Tissue Culture • June 4-7, 1994

Sheraton Imperial Hotel, P.O. Box 13099, Research Triangle Park, NC 27709

Check-In: 3:00 P.M. Check-Out: 12:00 NOON

Room Rate(s):	Single \$84.00 (King-Sized Bed)	Double \$84.00 (2 Double Beds)	(Single/Double Occupancy) (\$10.00 extra for each additional person)
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Name _____ Telephone _____

Firm _____ Address _____

City _____ State/Province, Country _____ Zip/Postal Code _____

<u>Occupant(s) of Room</u>	<u>Arrival Date</u>	<u>Time</u>	<u>Departure Date</u>	<u>Time</u>
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Cut off date for this group is May 3, 1994. Reservations made after this date will be confirmed at the current published rate and will be accepted on availability basis.

One night's deposit must accompany Hotel Reservation Form. Reservations cannot be made WITHOUT guarantee of payment or credit card.

Method of payment: ☐ Cash/Check ☐ American Express ☐ Carte Blanche ☐ Diners Club
☐ Master Card ☐ VISA ☐ Discover

Signature_____Card No. _____Exp. Date _____

DEPOSITS REFUNDABLE IF RESERVATION CANCELLED 48 HOURS PRIOR TO ARRIVAL

Hotel Telephone Nos. (919)941-5050 FAX (919)941-5156 (SORRY, NO PETS)



ABSTRACT FORM

1994 CONGRESS ON CELL AND TISSUE CULTURE

Research Triangle Park, NC, June 4-7, 1994

ABSTRACTS AND ABSTRACT DEPOSIT MUST BE RECEIVED BY January 14, 1994.

ABSTRACT DEPOSIT

An Abstract Deposit of \$25 is required with each abstract submitted; the deposit is not required if the presenter is a student (student verification required). The Abstract Fee is nonrefundable (unless Abstract is rejected).

METHOD OF PAYMENT

☐ Cash/Check (Make checks payable in USA funds to the Tissue Culture Association. If not USA bank, add \$10 Canada; \$25 other.

☐ Credit Card; ☐ VISA; ☐ MasterCard

Card # _____

Signature _____

Exp. Date _____ Amount \$ _____

SEND ABSTRACT FORM WITH FEE TO:

Drs. M. A. L. Smith and Howard L. Hosick
c/o 1994 Congress Secretariat,
8815 Centre Park Drive, Suite 210
Columbia, MD 21045 USA
Telephone (410)992-0946

Please indicate your first (1) and second (2) choice of category preferred..

CATEGORY PREFERRED:

- () Biotechnology
- () Cancer Biology
- () Cellular Immunology
- () Cell-Cell Interactions
- () Cellular and Molecular Toxicology
- () Cellular Models
- () Differentiated Cells
- () Extracellular Matrix
- () Genetics
- () Growth, Senescence and Apoptosis
- () Infectious Diseases/Cellular Pathology
- () Invertebrate Cells
- () Plant Cell Biology
- () Plant Developmental Biology
- () Plant Genetic Transformation
- () Plant Micropropagation
- () Plant Physiology
- () Plant Secondary Metabolism
- () Virology
- () Other (please specify)

Submitted for presentation as:

- ☐ Contributed paper (15 minutes)
- ☐ Contributed paper to be considered for insertion into SID _____ (give title of relevant SID session) (20 minutes)
- ☐ Poster
- ☐ Silent Abstracts Session (abstract to be published, but not presented at the Congress)

If it is not possible to schedule your paper according to your presentation preference, do you wish to:

- ☐ Accept the alternative form of presentation (circle one: contributed paper, poster, silent abstract)
- ☐ Withdraw the paper

The Planning Committee will provide a standard 35 mm projector, screen, and microphone at no charge. If additional equipment is needed, please contact the Business Office.

Name, address, & telephone number of person presenting paper.* Please print or type.

City _____

State/Province, Country _____ Zip/Postal _____

Code _____

Telephone(____) _____ FAX (____) _____

*Author(s) grant current and future publication rights, in any form, to Congress.

Indent title to
this point

SEND SEVEN additional copies
TYPE ABSTRACT HERE
Do not touch or overrun lines

8/93
MTG1A/MTGFLYR

SEND SEVEN additional copies

NOTE—Abstracts will be printed by photo-offset and will appear exactly as you submit it.

1994 Congress on Cell and Tissue Culture

The 1994 Congress on Cell and Tissue Culture will be held at the Sheraton Imperial Hotel in Research Triangle Park, North Carolina, June 4-7, 1994. Abstract, advance registration, and hotel reservation forms are enclosed for your use.

REGISTRATION

Advance Registration

To register in advance, complete the enclosed registration form and mail with appropriate fees to 1994 Congress on Cell and Tissue Culture, P.O. Box 73230, Baltimore, MD 21273 USA. **Do NOT mail registration after May 3, 1994.**

Payment may be made by check (payable to the Tissue Culture Association) in USA dollars drawn on a USA bank; if not USA bank add \$25 bank clearance fee (\$10 Canadian); or by credit card (MasterCard or VISA only). Purchase orders will not be accepted. A registration receipt will be forwarded to advance registrants immediately upon receipt of registration payment.

The meeting Abstracts will be mailed to all preregistrants in April. Registrants submitting registration after the Abstracts have mailed will receive their copy of the Abstracts at the meeting.

On-Site Registration

On-site registration will be available each day of the meeting for registrants who do not preregister prior to the May 3 deadline. Refer to the Abstract issue of the journal for on-site registration hours.

Refunds

Refund requests must be in writing. Amount of refund is determined by the date received: Full refund to May 2, 1994; one-half refund from May 2 to May 13, 1994; no refund after May 16, 1994. Abstract fee is non-refundable.

HOTEL ACCOMMODATIONS

Complete and mail the enclosed Hotel Reservation Form with first night's deposit directly to the hotel. **Do NOT send to Congress.** Cut off date is May 3, 1994. Reservations made after this date will be at the current published rate and will be accepted on availability basis. Convention rates will be honored 3 days before and after the meeting by special request, on availability basis only.

TRAVEL INFORMATION

Airline/Automobile Rental

Airline reservations and automobile rentals may be made through Conventions of America at 1-800-929-4242; ask for Group #671. American Airlines and U.S. Air are the official airline carriers. Thrifty Car Rental is offering car special convention rates. If you call direct: American, 1-800-433-1790, ask for Starfile #SO464V6; U.S. Air, 1-800-334-8644, ask for Goldfile #39220014; and Thrifty Car Rental, (919) 544-6419, collect calls accepted.

ABSTRACT SUBMISSION

Abstract deadline is **January 14, 1994**. An abstract deposit of \$25 per abstract is required at time of submission (students exempt). Complete the enclosed abstract form as instructed and submit with required abstract fee by January 14, 1994. All abstract presenters will be notified of acceptance and time of presentation by April 15, 1994.

Abstracts that Amplify SID Themes are Strongly Encouraged!

Although abstracts from all tissue culture-related fields are welcomed, we particularly solicit *exciting new contributions that expand on the Session-in-Depth (SID) topics for the 1994 Congress* (complete listing of SID topics is found on the enclosed conference flier). For some SID sessions, contributed abstracts that report interesting new progress, augmenting the SID theme, will be *selected by jury*, and authors will be asked to present their work as part of the SID session. Selected abstracts will be highlighted with a 20 minute time slot for presentation and featured within the SID session as a complement to the invited keynote speakers. To request that your abstract be considered for possible inclusion in an SID session, please check the appropriate box on the Abstract Submission Form and specify the title of the SID session to which your work relates. Authors will be notified by April 15 as to whether their abstract has been selected for an SID session, scheduled for an oral contributed or poster session, or rejected.

Silent Abstracts Session

For authors who will *not* be able to attend the 1994 Congress but would still like to present an abstract of their work, a **SILENT ABSTRACTS SESSION** is offered. Abstracts contributed for the Silent Abstracts Session *will* be printed in the Abstracts book, but will not be followed by a poster or oral contributed paper presentation. Authors who are unable to attend the 1994 Congress are encouraged to take advantage of the Silent Abstracts option. Please *do not* submit an abstract for a poster or oral paper slot if you will not attend the Congress. Poster set-ups are costly and missing posters or no-show presentations are aggravating to the other Congress participants. Authors who do request a poster or oral presentation slot, but *fail* to attend the Congress and *fail* to withdraw the abstract by April 1, 1994 may have their abstracts rejected in the future.

STUDENT AWARDS

You may apply for the following student awards offered by the Tissue Culture Association when submitting your abstract. Student participation is encouraged. Apply by letter, including the abstract, narrative of the methods used and results (maximum 4 pages) with supporting figures/tables as appropriate, and supervisor's certification that work was performed by student. **NOTE:** Some awards require additional criteria (as shown). Papers must be presented at the meeting as scheduled. Award winners will be notified prior to meeting.

CELLULAR TOXICOLOGY Student Award—Open to students working in cellular toxicology. Provides travel support up to \$500 to attend the annual meeting.

WILTON R. EARLE Award (\$300 plus travel expenses up to \$500)—This award is open to students working in all areas of cell and tissue culture. An estimate of travel expenses must be submitted with the abstract. They are evaluated for experimental design, clarity of presentation, and validity of interpretation.

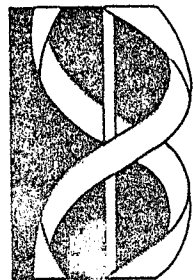
HONOR B. FELL Award (\$150)—Available to students doing research with vertebrate cell, tissue, or organ culture. Presentations from the platform or posters will be evaluated by a panel of judges from the Vertebrate Division.

HOPE E. HOPPS Award (\$200)—This award is open to students working in all areas of tissue culture.

JOSEPH F. MORGAN Award (\$100)—This is a travel award to assist Canadian students.

JOHN S. SONG Foundation Award—Provided to cover meeting travel expenses of students working in plant cell biology. Submit a one page resume and an estimate of travel expenses.

TCA STUDENT TRAVEL Awards—Open to students working in all areas of cell and tissue culture. The awards provide travel support up to \$500 to attend the meeting. An estimate of travel expenses must be submitted with the abstract.



CONGRESS ON CELL AND TISSUE CULTURE

1994 Meeting of the Tissue Culture Association

Regulation of Cell and Tissue Differentiation

Research Triangle Park, NC

PLENARY SESSION

Regulation of Cell and Tissue Differentiation

Ellsabeth Gateff, Institut fur Genetik, Johannes Gutenberg, Universitat
Mainz
Cynthia Lincoln, USDA/ARS Plant Gene Expression Center
Mina J. Bissell, Lawrence Berkeley Laboratories
John McLachlin, NIEHS

PLANT

Morphogenesis: Plant Cell and Tissue Differentiation

Convenor: Ebrahim Firoozabady, DNA Plant Technology Corp.
Ian Sussex, University of California

Rosalind Williams, Plant Gene Expression Center

Morphogenesis: Hormonal Manipulation of Differentiation

Convenor: T.S. Rangan, Phytogen
Richard Sjoland, University of Iowa
Gary Peter, University of California

Safety of Genetically Engineered Plants: Science and Perceptions

Convenor: Maud Hinchee, Monsanto
Steven Padgett, Monsanto
Tom Hoban, NC State University
Phil Dale, John Innes Institute

The State of the Art for Transformation Systems: What Is New, What Works

Convenor: Ted Klein, Dupont Agricultural Products
Yuechun Wan, USDA/ARS Plant Gene Expression Center
Chris Flick, DeKalb Plant Genetics
Martin Wilson, ICI Seeds
John Bedbrook, DNA Plant Technology Corp.

In Vitro Plant Resources for Valuable Products

Convenors: MAL Smith, University of Illinois and Paul Read, University of
Nebraska

John Fitch, Scripps Research Institute

Pamela Weathers, Worcester Polytechnic Institute

Prakash Kadkade, Phytocatalytic

WORKSHOP--Automation in Micropropagation

Convenors: Neville Arnold, Agriculture Canada and Barbara Reed, USDA/ARS
Toyoki Kozai, Chiba University
Peter Ling, Rutgers University
MAL Smith, University of Illinois

VERTEBRATE

Special Symposium: Cell Culture Models of Senescence

Convenor: James R. Smith, Baylor College of Medicine
Thomas MacIag, American Red Cross
James R. Smith, Baylor College of Medicine
Donna Murasko, University of Pennsylvania
Peter Hornsby, Baylor College of Medicine

Retinoids as Regulators of Gene Expression In Vitro

Convenor: Peter J. Davies, University of Texas Health Science Center
Peter Davies, University of Texas Health Science Center
Anton Jetten, NIEHS

Elwood Linney, University of North Carolina

Jonathan Ashwell, National Institute of Health

Innovations in Non-Invasive Measurement of Cell Functions

Convenor: Charles Keese, Rensselaer Polytechnic Institute
William Wiesmann, Walter Reed Army Research Institute
R. Mark Wightman, University of North Carolina
J. Wallace Parce, Molecular Devices Corporation
Charles R. Keese, Rensselaer Polytechnic Institute

Multicellular Organization and Differentiation in Culture

Convenor: Joseph Leighton, Aeron Biotechnological, Inc.
Mary Barcellos-Huff, Lawrence Berkeley Laboratories
Bruce E. Elliott, Upjohn Laboratories
Paul Netteshalm, NIEHS
Reen Wu, California Primate Research Center
Allen E. Buhl, Upjohn Laboratories
Robert H. Hoffman, Anticancer, Inc.
Joseph Leighton, Aeron Biotechnological, Inc.

WORKSHOP--Primary Culture Differentiated Cells

Convenor: Colette Rudd, SRI, Stanford

ROUNDTABLE--Cell Culture Alternatives to Animal Use in the Life Sciences

CELLULAR TOXICOLOGY

Tissue Specific Xenobiotic Metabolism

Convenor: Shuet-Hing Lee Chiu, Merck

New Approaches to Environmental Testing Using Inducible Cellular Defenses

Convenors: Lawrence Hightower, University of Connecticut and Eugene
Elmore, National Institute for the Advancement of In Vitro Science
Lawrence Hightower, University of Connecticut and
John Ryan, University of Connecticut

Roy Young, Clemson University
WORKSHOP--Corn Transformation

Convener: Paul Zankowski, Harris Moran Seed Co.
John Dawson, Ciba-Geigy Corporation
Monica Miller, DowElanco
Todd Jones, E.I. DuPont De Nemours
Dave Songstad, Pioneer Hi-Bred Intl.
Chuck Armstrong, Monsanto

INVERTEBRATE

Recent Progress in Transformation Systems

Convener: Anne Fallon, University of Minnesota
David Lampe, University of Illinois
Marjorie Hoy, University of Florida
Ann Fallon, University of Minnesota

Progress in Marine Invertebrate Cell Culture

Convener: Lehman Ellis, University of New Orleans

Peter Candido, University of British Columbia
Cindy Orser, Xenometrix, Inc.

Mark Hahn, Woods Hole Oceanographic Institution
Donald Tillitt, National Fisheries Contaminant Research Center
In Vitro Assessment of Transport Mechanism in Mammalian Cells

Convener: Seth Albert, Harvard Beth Israel
The Role of Molecular Biology in Cellular Toxicology

Convener: Jack Lipman, Hoffman LaRoche

In Vitro Test Systems in Toxicology

Co-conveners: Mary Taub, Roswell Park Memorial Institute and
Richard Ham, University of Colorado Medical
Center

The Role of Cell Mediators in the Toxic Response

WORKSHOP--Law, Litigation, and Regulation in the Biotechnology Laboratory

SPECIAL JOINT SYMPOSIUM

(Cellular Toxicology and Vertebrate) Advances in Blood Brain Barrier Research

Co-conveners: Hank Lane, Co-Star Corporation and Kenneth
Audus, University of Kansas

Kenneth L. Audus, University of Kansas

Thomas J. Raub, The Upjohn Company

Joel Pachter, University of Connecticut School of Medicine

William M. Pardridge, UCLA School of Medicine

PLANNING COMMITTEE

Mary Ann Lila Smith, *Chair*
University of Illinois

Tim Kurtli
University of Minnesota

Howard L. Hosick, *Vice Chair*
Washington State University

Norma Trolinder
USDA/ARS

John Harbell
Microbiological Associates

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Placement Service

The Association, through the pages of its journal, *In Vitro Cellular and Developmental Biology*; newsletter; *TCA Report*; and Annual Meeting, provides a placement service for members and non-members alike.

- Persons seeking employment can submit a "Candidate Registration Form." This service is provided at no charge to members. Non-members will be charged a small fee.
- Prospective employers with positions available are asked to submit a "Position Listing Form." A nominal fee for this service is required.
- Descriptions of available opportunities will be published in our publications.
- Employee and employer information will be available in the Advertisement Section of our publication and at our Annual Meeting.
- Scheduled interviews can be arranged at the Annual Meeting, and employee and employer binders will be available for review.

For information and future mailings, contact:



1994 CONGRESS ON CELL AND TISSUE CULTURE
8815 CENTRE PARK DRIVE, SUITE 210
COLUMBIA, MD 21045
(410) 992-0946; FAX (410) 992-0949

- ☐ Place me on your list for future information/registration
Preferred Division _____
- ☐ Send contributed abstracts forms when available
- ☐ Send exhibit prospectus/sponsorship information
- ☐ Send subscription information on *In Vitro Cellular & Developmental Biology--ANIMAL and PLANT*
- ☐ Placement Service

Name _____

Institution _____

Street _____

City, State/Province _____

Zip/Postal Code _____ Country _____

Telephone _____ Facsimile (FAX) _____